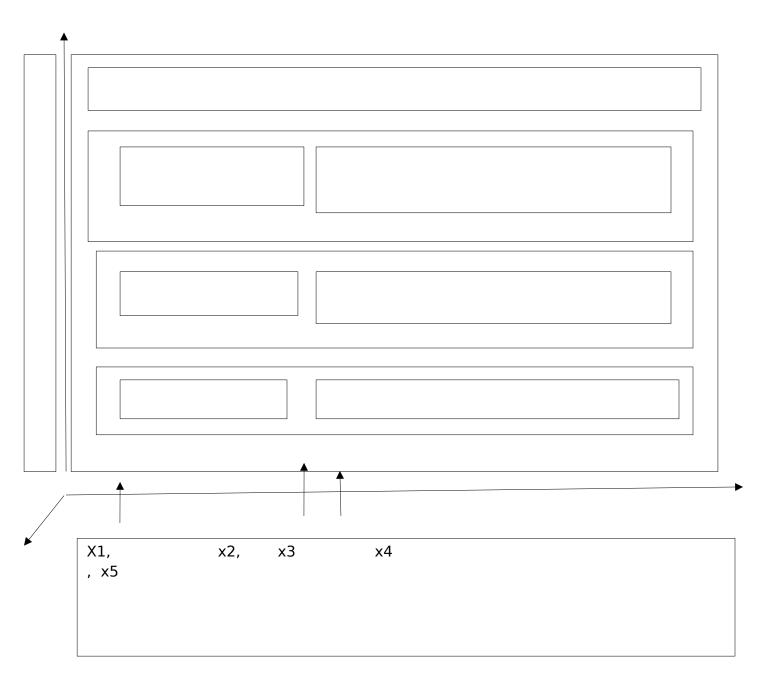
### **Document walett office**



# tshingombe fiston <tshingombefiston@gmail.com>

Oct 6, 2023, 4:28 PM (17 hours ago)

## to **tshingombe**, **tshigombekb**, me

Creation d UN ecran d Accueil

- menue projet cmd
- ajoute feuille CMD

..

2 programmation interface:

Procedure.

- \_ from calcule,lbl compte,lbl not de passe, txt mot depass,,cmd ok, CMD annuler,,
- denote = input box

Private sub Cmd ok , click end

Form entre CMD entree des Donne IMG fond ecran,

From feuille Accueil..

- + Implantation du code apres doublicage Sur object . Structure if ,the, else , If text Fiston then
- feuille de calcul.

Frame Nombre 1 label , Nombre label 2  $\,$ 

label, combo text 1, text 2 CMD calcule, CMD annuler,,

- enregistre,, modification, supprime, annule..
- -permutw  $\_1$ :drPeaux indiquat q une permutation a eye effectue fin , si recommence tanaue ,

Programm ,
Public sub tnA bulles()
Dim permuted as integer
Dim auxiliaries as integer
Permuted = 0
For i =1to 99

If tab entire(I)<tab entiers (I) tab entiers (I+1)then auxiliaries = tab entiers

```
( I) ,,tab entiers ( +) = auxiliaries
Permits=1
End if
Loop while permute =1
End sub
```

### metadata

Inbox

t

**tshingombe** 12:17 PM (0 minutes ago)

```
to tshigombekb, me,
                                         End Sub
tshingombe
                                         Private Sub Label1 Click()
VERSION 5.00
Begin {C62A69F0-16DC-11CE-9E98-
                                         End Sub
00AA00574A4F} UserForm1
                       "UserForm1"
   Caption
                                         Private Sub ListBox1_Click()
   ClientHeight
                       8055
                   =
   ClientLeft
                       45
                   =
                                         End Sub
   ClientTop
                       375
   ClientWidth
                       16950
                                         Private Sub MultiPage1 Change()
   OleObjectBlob
"UserFormdocument wallet
                                         End Sub
meta.frx":0000
   StartUpPosition =
                                         Private Sub MultiPage2_Change()
'CenterOwner
   WhatsThisButton =
                       - 1
                           'True
                                         End Sub
                           'True
   WhatsThisHelp
End
                                         Private Sub ScrollBar1_Change()
Attribute VB Name = "UserForm1"
Attribute VB GlobalNameSpace =
                                         End Sub
False
Attribute VB Creatable = False
                                         Private Sub ScrollBar3 Change()
Attribute VB PredeclaredId = True
Attribute VB Exposed = False
                                         End Sub
Private Sub Frame4_Click()
```

Private Sub TabStrip1 Change()

End Sub

Private Sub UserForm Click()

End Sub

Private Sub UserForm\_DblClick(ByVal Cancel As MSForms.ReturnBoolean)

End Sub

Private Sub UserForm\_Error(ByVal Number As Integer, ByVal Description As MSForms.ReturnString, ByVal SCode As Long, ByVal Source As String, ByVal HelpFile As String, ByVal HelpContext As Long, ByVal CancelDisplay As MSForms.ReturnBoolean)

End Sub

Private Sub UserForm\_KeyUp(ByVal KeyCode As MSForms.ReturnInteger, ByVal Shift As Integer)

End Sub

Private Sub UserForm\_MouseMove(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As Single, ByVal Y As Single)

End Sub

Private Sub UserForm\_QueryClose(Cancel As Integer, CloseMode As Integer)

End Sub

Private Sub UserForm Resize()

End Sub

Private Sub UserForm\_Scroll(ByVal
ActionX As MSForms.fmScrollAction,

ByVal ActionY As MSForms.fmScrollAction, ByVal RequestDx As Single, ByVal RequestDy As Single, ByVal ActualDx As MSForms.ReturnSingle, ByVal ActualDy As MSForms.ReturnSingle)

End Sub

Private Sub UserForm Terminate()

End Sub

Private Sub UserForm\_Zoom(Percent
As Integer)

End Sub LB L[1] B!ĐÏ à¡±á>

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Frame22 O	€
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€	/ScrollBar3toÄö
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#### Edutecth tbrigade tfc osg ppcmm

Wallet portofilio office

9/19/2023

pc25

Re: Documents wallet
Portofilio,office Engineering
project order management
appointment project file order
sale campagny meting
tbrigade,edutech psscm... agenda
office .PC safety wallet documents
financial office

-1. Purpose: documents wallet
Portofilio , documents systeme
info., project appointment office
Poste

Agendas office PC safety wallet document wether documents, data base, documents network research office appointment.

project month ,order document .
 Order screen. . Statement documents.

- 1.1.Purpose: documents case book .booking documents
- , financial information documents office ,
- -Office document
- -post documents,
- --Poste wallet easy documents Poste
- ---office ,post bank , archfile office document ,

Docket..

- -Documents arch file
- -Documents stationery document
- -Documents office

- -Documents database system .
- -Documents bookeping sale buy ,
- -document library bibliotech.,
- documents,

.--- engineering creation document
.,

Post document office appointment submission close ,

-Price documents, price close tendered ---Poste value bid posted wallpaper,

Minimum required Poste tendered

Spreadsheet, office PowerPoint, - documents , office post address documents

Relyan documents,

-Documents memorandum access documents Poste office , documents reading , documents ,

Project posted

Appointment post documents wallet report agendas

Project

- documents processing input output

Wallet project, management

- documents screen radiographic documents scanographic documents photographic document image documents artistic valeur attributes document pixel coulor , documents

Document monument magazine monaitaitarist ,tableur course,

documents,

Documents note ecriture

- 3.purpose . documents wallet
  Portofilio evidence,,
- -Documents wallet registration form appointment office Poste wallet easy.
- register database documents wallet

Programmation office register document.

- -Database employment documents wallet .
- -Office document wallet Portofilio.

Information recruitment documents
wallet information employment
system

Database office d base qbasic visual basic office COBOL .

 office project database documents wallet .

Stationery document wallet office information handing Manuel system

- -script hand project documentation
- -arch file ,office folder desk
  information table time table task
  operationel system case paint
  case book library office ,
- -office size .mass. meter square

area

- casebook, rerwiten framework tools form assessment formal Summative office ,
- -Tools frame text page , stationery design printer sign industrial papper standard.
- -Tools paint case design ,

Office automation machine system la guage conversation convert reader PC and environmental PC printer system recruit machine database system project , documents wallet arch file database electronic memory wallet ,

Documents wallet information employment system specific, responsible,,

-Documents wallet bank account database automatic ATM ,printer bank ,stamp teller stamp , statement,check database system , account books library bank ISBN order book bank order project book bank wallet , employment salary

Record book customer reviews, customer record registration ID number system information,

Documents wallet Portofilio job career emploie,

- database emploie system entry and dabase outcom up grade ,up database system project employment opportunities, ID
- ID registration form record form entry ,form exhibition,form move , form period form years value database emploie

Emploie record training job graduation, job training post

advertised documents wallet resource humain , personel

- ID registration form customer recording training custome entry exhibition, database emploie graduation job post customer sale reward award customer ID wallet documents Portofilio, officer
- bank account statement bank customer clearence cost amanded correction reward discount I'd customer deregister penalty, I'd customer record emprissonement labour work I'd cost years , system document wallet office information handing,
- program logic control customer ,logic system custome I'd , programme language machine customer database system document wallet Portofilio, I'd
- wallet I'd trainer, course job ruling job duty job post job weekend job . Wallet account e wallet easy pay system.
- -Print I'd framework, print I'd information,,print post ponent I'd ,print job duty post rosta,print task operation print salary day , prive over time ,printed provide fund ,print tax job revenue emploie post ,print compensation award job , print insurance job ,print data dol registration labour, print conciliation arbritatiin ruling job conduct job day 90 day years progress conduct , misconduct, dismissal award job, print holiday job , over time ,print pension job ,print intellectual property job register ,printed social insurance job security job , printing policy job record database system wallet accountability systeme, print order case power attorney debate

creditor legal job , printed training record job authority job skill development job, training certificate in progress ,award certificate,printed agreement settlement job , print documents grand total wallet statement salary emploie resource emploie,humain ,material visa printed code , registration, database system providing fund , earned award printed ,

#### Convert

- -Office wallet Portofilio Poste office documents wallet resultat ,re posted , disappointed documents printed , rejected documents, expired documents posted up date documents,up grade documents wallet Portofilio employment and custome record , licensing database.
- ,- design project office to office
  travel office information system,
  management information systems
  documents, ,
- design projects inovation
  management system conduct process
  following database maintenace
  wallet account account posted
  recruit machine database
  maintenace repaired , intelligence
  systems rebuild office , rebuild
  Poste re posted policy meeting,
  reprint documents review document
  support, wallet account,

Booking: filing documents posted wallet account documents booking training records ,

-office travel,,office cad corol

drawing ..project office documents wallet engineering drawing .line work , planning work, planning jobs, systemWallet account dr

12. Engineering: electrical

1. Purpose documents

9.purpose : documents
wallet,office,

Training customer office record , documents, office,

Training customer, and training student university trading up date upr grade student information system, up grade connexion system,

9.1Purpose storage , office genie counseling,genie soft ward genie hard ward ,, safety security policy office counsultant jurisdiction

Documents submitted

Assessment and re assessment peer self group information technology intelligence , technology

Technical PC vs science computer vs qualifition insurance information

-help memory pilot math
information vs campus numerical
box ,math info,news technologie ms
word ms help memory copying
syllabus training Unix Google

Intelligence artificial genie logiciel , input technology ms office creation news technologie help memory use for ms treatment technologie input output system expert intelligence capable resource human capacity not it includes mathematics algorithm ,,

- calcul arborith , topographic topologies aerveur , intelligence robot automation science language science language science language science computer science language ,science mathematics chimic physics stereo chimic physics synthesis and , Polytechnic electronic information technicien ,,no ITC it is include work topic it faculty option intelligence artificial and genie logiciel ,
- pilot lecture pilote fly driver disc memory network navigation,

Mathematics sacrifice workplace visuel basic ,

- honesty intellectual library
  pilot ask questions training PC
  cyber ,training research ,x vs y
  procedure create page create
  algorithm arborith ,step number
  phase fine creation page , button
  exportation language literacy ms
  word , creation find studies
  habillement ms word creatt find
  studies caractere address vs
  medecine mycine bio
  algorithm ,science Polytech
  algorithm
- -retetion office ,button cyber button command ,do's vs algorithm procedure medicine to mutch work

- office contii algorithm is vs algorithm for students ,
- subject theory vs for laboratory training work , literature 'creat visual basic office protection documents client terminal all letter memory ,
- algorithm initial procedure select , operationel insert button, click operationel,
- information processy vs Computer
  office , financial Computer ms ,
  window theories safety policy
  theory vs ,technical PC ,vs
  science , PC ITC theory create
  cover page letter folder create
  financial fibre optics create
  xompui lettre CVS ,create ms word
  processing marketing processing
  asj , buttons ,create for data
  data base
  office ,intellectual ,oms
  algorithm PC ,technical
  mathematics science PLC ,robot
  Unix,
- -info process vs computia vs management system information business PC ,admnistry PC theory cover ,page office traine power point acrob converse,
- mathematics info comptabilite invention creation plan comptable code binaire calcul, vectorial code binaire 'calcul vectorial dimensionnement algorithm mathematics financial invention plan financial savant Gestion ,
- -arm calculteice commercial, invention formuler mathematics function grand droit ,
- invention: ax+ by+c.
  functionalite logiciel rigth
  autocad cad ,vector financial
  functionalite value
  adddiatribution ITC ,scatter robot

geodesie projection ,invention
mathematics ,savant mathematics
autocad,memoire mathematics

- -inventiin mathematics info science computia mathematics exchange call cash nothing financial functionalite,
- invention mathematics series sequence integrally x = 3, if y = 4else the x,y co - ordinal scator ,z = matric informationequation ,x+y = 0 Fortran sum limit x ms ward display, ITC InSite mathematics coverage page is site theory in site rules ,matht recruitment info mathematics recruitment informer investigation Mathe guadratic make square rectangular plot investigation quadratic information language display generate for ,no it robot intellectuel system mathematics invented equation ,x+y=0quadratic,
- no invented robot x,y function scater robot intellectual ,financial invented calcul, permit to account money ATM to save formule ,
- info language inventor informer
- info invented process,

Mark ROM, octal ,

- math info initiation information arithmetic logic process logic ,Espace pixel VGA,cla or, invention
- -mathematici do software invention
  hard math PC ordinance
  sequence,MHz gigabit calcul
  logarith intellectuel processor it
  mathematics invented equation
  computing ,

-ms word disc mathematics character 100000 caractere programs frame program , excell table equation financial word limited

1099 word octa octal binary equation, -ms internet robot word page mathematics character system mathematics,

- do's mathematics code 00000,
- math inform science and computer science chimie info physical science chimie faculty chimie instrument, conversion synthesis,
- -mathematici info et Polytechnic and science academic material mathematics,
- power supplies arithmetic
  machine ,process control
  project ,VB ,access , actual
  technologie ,info mathematics
  equation logic integral Lim actual
  review series automatic system
  robot language technology
  mathematics ward caractere ,
  actually technology,information
  ROM ready, access.memkry,

to me

Schematic showing

Beta=the effect ,ab of factor level , x1 jk= , error association observations level plan analyse

- radiotechnic,

Power amplificator TV sound base oscillator pentad tube ,

Characteristics indirect cathode wire V,1 6.3 v,

Source wire,

Use conditions nominal RMS,

- voltage and. Va - 170---250V

-voltage grille. V get --170--250v

Voltage. 45 , 32m

Current. 62 2,4 ma

- coefficient amplificator. 15 ohm

- resistor internal 0,2 , 4,6 MV

Capacity

Capacity grille ...CG ---14,7 of

Capacity and grilled cage <0,8pd,

Value limited

Peek voltage anode vap max 7,kV

Voltage anode Va max 300v,

Voltage of grill. 3000,

Cathode current v max 30 w, 180 ma,8,5

+ Telemetry video output pentode ,power flip flop, ,

to me

Schematic showing a 3 phone system new button visibility above ,each handset must installer ,intercom system used surplus ,

- parlist : handset regular telephone type no push to talk or sound ,power , lungs buzzer 6, volt Eduard 15 ,see text cradle switch phone or see text , strip text cases miss hardware, form system every 6 day or equivenlent ,6 volt interconnected , distribution such shake ,

- personal call plan :

Telephone call plan B1, B,2,B,3

Call A1. A1B1,A1B2. ,A1B3

Call A 2. A2B1 ,A2 B2,A2 B3

Call A3. A3B1,A3B2,A3B3

Call A4. A4B1, A4b2, A4b3

&1 alpha= the effect of in the level of fonctionnement call telephone call plan ,I=1,

- emettor , af
  amplificator ,emettor ,compositor
  number ,receptor ,display ,
  speaking,
- IR(t)=VRF cos ( wi.t)=I(t)+ "v1
- $-QR(t)=VRF \sin (wot)=Q(t)+ v2,,$

Insulation in receptor conversion, in case we Cree en our mixage voice I et Q ,, Voltage ,, quadrature, insulation mean level power

-typica using single side ,

telecommunication street distribution for new urban residential estate

Electricity peddel ,started conduit , road way ,

Legend ADSL signal spliten telephone , exchange, ADSL convey frequency , asdl modem yes customer premise,,

typical grand copper twisa.
 Network telephone exchange, ,

Cabling homes for telecommunication completed guide home cabling ,

Line 1 yes ,line 2 yes ,,phone ,1 yes ,phone 2 socket jack yes , mode 3, 5 equipment,

Possible fault due comming of the telephone voice port inside , fault due to switch relay connect in mode ,,

 -basic home network system typical cabling arrange and connection for , typical telephone and data services, ,Famut TV , bender PC, study PC, kitch PC ,wall ,,ethernal

Legend: modulator socket CCO, modulator coaxial socket, coaxial plug

Polyphase emettor receptor frequency intermediate heterodyne class, modulation phase phase (t)= cos ( wt+\$0)

Sin a (t)=0, then m (t)=0 module phase shift signal module ,m(t) = sum ,,

-canal of transmission GSM cellular antena interval time area 577us signal terminal,

Wave electromagnetic tic plane impedance caractere area, E/H=377 ohm ,, schema btsbsc, msc network fixe ,,

Numeratation of voice

Fibre cider , module, filter decoder ,input output band 300hz - 3,4 kh, 13 bit cadence ,,

Input line 11,2,3, cabling

 circuit command selector, meter decimal Relais, rotational test, duplicate line off, cut line,
 Decimak control, direct A, switch register in the register in the group the calling division aearxf variety,

Switch line ,switch final connecter ,signal control send impulsion ,interconnector , pilot switch start , div ,div,,,

-multivaria data analyse
telemarketing,point ,do"
sumb( x1k-xjk ) exp 2,, structures
equation model customer loyalty

adversity board award , quality imagine customer satisfaction,x x=, loyalty= b1 brand customer ,brand equity =C 1 advertising + c2 brand award + image price customer satisfaction = image price,

-diatribhtor performance

Distribution/ service ranking X1/) overall performance ranking y1// ranking differente d1=y1=y2/// diffential sequence, data analyse, investigation of association,

- Winer trading plan bet

Net profit= number of wine bet x premise pay out motion number of lossi. ,bet premium, y profit or loss,w number of winning vet ,k payout motii,

-model : l

Model: ml 06NP, ML6,c

- capacity : 6kg -15-30

Resolution: 1g+2g-5

Weight range ,-3 kg ,7,5-6

- -train display ,zero net
- sub display: zero net ,vf d LCD graphic ,

Disparue dwe , ply memory/ ml on

Print / rypr , available size labej ,Manuel

Max : 90009,pl, width

- label printy , interface, power requirements , power consumption, operating tem plotter size ,mm , product model
- report financial

Option model product

1 m b memory ,

Specifications display ,operator ,5.2 LCD , 2x 16 pop up ,20 lines

Memory back up , data up vendum lithium ,power consumption , AC 120 v ,operating 9A, standards 0,2 A , operating AC 239 ,operating dimension

-system development:

Sample Gant chart showing progress system development activities by putting bar ,

Project planning documentau,
page )

- system ware inventory system modifucatt system ware house ,
- system schedule activities completed activity, analyse
- activity ,/1/2/3/4/5/6/6/8/9/12/13/14
- -required definju
- -for project team
- definition and
- definition objectivity
- -R3 interview whereataff/

Attribute VB Exposed = False Private Sub ComboBox1 Change() Organisation required End Sub Vo review Private Sub CommandButton1 Click() Design End Sub - revise programm Private Sub CommandButton2 Click() End Sub [Message clipped] <u>View entire</u> Private Sub Frame1\_Click() message End Sub Private Sub UserForm Click() **Ngineering** End Sub **Database computic report document** wallete data training trainer record, Private Sub UserForm\_DblClick(ByVal office Cancel As MSForms.ReturnBoolean) End Sub ,, supplier enginnering work electrical undertake information Private Sub UserForm\_Error(ByVal Number As Integer, ByVal Description As Inbox MSForms.ReturnString, ByVal SCode As Long, ByVal Source As String, ByVal HelpFile As String, ByVal HelpContext As Long, ByVal CancelDisplay As tshingombe fiston 11:57 AM (17 MSForms.ReturnBoolean) <tshingombefiston@gmail.co minutes ago) m> Fnd Sub Private Sub UserForm KeyUp(ByVal KeyCode As MSForms.ReturnInteger, ByVal Shift As Integer) to tshigombekb, me, tshingombe, tahitaditshingombe, TSHINGOMBEKB End Sub Private Sub UserForm MouseUp(ByVal VERSION 5.00 Button As Integer, ByVal Shift As Begin {C62A69F0-16DC-11CE-9E98-Integer, ByVal X As Single, ByVal Y As 00AA00574A4F} UserForm1 Single) "UserForm1" Caption = ClientHeiaht = 8085 End Sub ClientLeft 45 ClientTop 375 Private Sub UserForm RemoveControl(ByVal ClientWidth 16815 Control As MSForms.Control) OleObjectBlob "UserForm document office.frx":0000 End Sub StartUpPosition = 3 'Windows Default Private Sub UserForm\_Resize() WhatsThisButton = 'True WhatsThisHelp = 'True End Sub Attribute VB Name = "UserForm1" Private Sub UserForm Scroll(ByVal Attribute VB GlobalNameSpace = False ActionX As MSForms.fmScrollAction, ByVal Attribute VB Creatable = False ActionY As MSForms.fmScrollAction, ByVal Attribute VB\_PredeclaredId = True

RequestDx As Single, ByVal RequestDy As Single, ByVal ActualDx As MSForms.ReturnSingle, ByVal ActualDy As MSForms.ReturnSingle) End Sub Private Sub UserForm Terminate()

End Sub

Private Sub UserForm\_Zoom(Percent As

Private Sub cmd bgColor Click()

Dim r, q, b As Integer r = Int(Rnd() \* 256)

g = Int(Rnd() \* 256)

b = Int(Rnd() \* 256)MyForm.BackColor = RGB(r, q, b)

End Sub

Private Sub Cmd\_fgColor\_Click()

Dim r, g, b As Integer

r = Int(Rnd() \* 256)g = Int(Rnd() \* 256)

b = Int(Rnd() \* 256)

 $Lbl_Msg.ForeColor = RGB(r, g, b)$ 

End Sub



Delivery 11:58 AM (17 minutes Subsyste ago)

Address not found Your message wasn't delivered to tshigombekb@gmail.com because the address couldn't be found, or is unable to receive mail. LEARN MORE The res



Mail

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tshingombe fiston <tshingombefiston@gmail.co minutes ago)

11:58 AM (16

to tshigombekb, tshingombe,

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                         On Mon, Sep 25, 2023 at 11:57 AM tshingombe
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                         fiston <<u>tshingombefiston@gmail.com</u>> wrote:
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€
                         Begin {C62A69F0-16DC-11CE-9E98-
                         00AA00574A4F} UserForm1
                                      "UserForm1"
                           Caption
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StartUpPosition = 3 'Windows
                                               End Sub
Default
   WhatsThisButton =
                       -1 'True
                                               Private Sub UserForm_Resize()
   WhatsThisHelp =
                       -1 'True
                                               End Sub
Attribute VB Name = "UserForm1"
Attribute VB GlobalNameSpace = False
                                               Private Sub UserForm Scroll(BvVal
Attribute VB Creatable = False
                                               ActionX As MSForms.fmScrollAction, BvVal
Attribute VB PredeclaredId = True
                                               ActionY As MSForms.fmScrollAction, ByVal
Attribute VB Exposed = False
                                               RequestDx As Single, ByVal RequestDy As
Private Sub ComboBox1_Change()
                                               Single, ByVal ActualDx As
                                               MSForms.ReturnSingle, ByVal ActualDy As
End Sub
                                               MSForms.ReturnSingle)
Private Sub CommandButton1 Click()
                                               End Sub
End Sub
                                               Private Sub UserForm Terminate()
Private Sub CommandButton2 Click()
                                               End Sub
End Sub
                                               Private Sub UserForm Zoom(Percent As
                                               Integer)
Private Sub Frame1_Click()
                                               Private Sub cmd_bgColor_Click()
                                                Dim r, g, b As Integer
End Sub
                                                r = Int(Rnd() * 256)
                                                g = Int(Rnd() * 256)
Private Sub UserForm_Click()
                                                b = Int(Rnd() * 256)
                                                MyForm.BackColor = RGB(r, g, b)
End Sub
                                               End Sub
Private Sub UserForm DblClick(ByVal
                                               Private Sub Cmd_fgColor_Click()
                                                Dim r, g, b As Integer
Cancel As MSForms.ReturnBoolean)
                                                r = Int(Rnd() * 256)
End Sub
                                                g = Int(Rnd() * 256)
                                                b = Int(Rnd() * 256)
Private Sub UserForm_Error(ByVal Number
                                                Lbl_Msg.ForeColor = RGB(r, g, b)
As Integer, ByVal Description As
MSForms.ReturnString, ByVal SCode As
                                               Fnd Sub
Long, ByVal Source As String, ByVal
HelpFile As String, ByVal HelpContext As
Long, ByVal CancelDisplay As
MSForms.ReturnBoolean)
                                               [Message clipped] View entire message
End Sub
Private Sub UserForm_KeyUp(ByVal KeyCode
                                                                  11:58 AM (16 minutes
As MSForms.ReturnInteger, ByVal Shift As
                                               Mail Delivery
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Integer)
                                               Subsystem
End Sub
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Private Sub UserForm MouseUp(BvVal
                                               me
Button As Integer, ByVal Shift As
Integer, ByVal X As Single, ByVal Y As
Single)
End Sub
                                                   Address not found
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Private Sub UserForm RemoveControl(ByVal

Control As MSForms.Control)

Your message wasn't delivered to **tshigombekb@gmail.com** because the address couldn't be found, or is unable to receive mail.

#### **LEARN MORE**

The response from the remote server was:

550 5.1.1 The email account that you tried to reach does not exist. Please try double-checking the recipient's email address for typos or unnecessary spaces. Learn more at <a href="https://support.google.com/mail/?p=NoSuchUser">https://support.google.com/mail/?p=NoSuchUser</a> z20-20020a05651c023400b002bff9e2388bsi343 3874ljn.512 - gsmtp



Mail Delivery 11:58 AM (16 minutes

Subsyste ago)

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tshingombe fiston <tshingombefiston@gmail.co

12:01 PM (13 minutes ago)

to tshigombekb, tshingombe, tahitaditshingombe, TSHINGOMBEKB, me

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document wallet.frx":0000
   StartUpPosition =
                           'CenterOwner
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   WhatsThisButton =
                       - 1
                           'True
   WhatsThisHelp =
                       - 1
                           'True
End
Attribute VB Name = "UserForm2"
Attribute VB GlobalNameSpace = False
Attribute VB Creatable = False
Attribute VB PredeclaredId = True
Attribute VB Exposed = False
Private Sub UserForm Click()
End Sub
Private Sub Form Activate()
Print 20 + 10
Print 20 - 10
Print 20 * 10
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Mail

Delivery 12:01 PM (13 minutes Subsyste ago)

Address not found Your message wasn't delivered to tshigombekb@gmail.com because the address couldn't be found, or is unable to receive mail. LEARN MORE The res



tshingombe fiston <tshingombefiston@gmail.co

12:02 PM (13 minutes

to tshigombekb, tshingombe, tahitaditshingombe, TSHINGOMBEKB, me

VERSION 5.00 Begin {C62A69F0-16DC-11CE-9E98-00AA00574A4F} UserForm3

Caption "UserForm3" ClientHeight = 6210 ClientLeft 45

ClientTop 375 ClientWidth 15855 OleObiectBlob "UserForm3 document walet.frx":0000 StartUpPosition = 'Windows Default WhatsThisButton = 'True WhatsThisHelp 'True Attribute VB Name = "UserForm3" Attribute VB GlobalNameSpace = False Attribute VB Creatable = False Attribute VB PredeclaredId = True Attribute VB Exposed = False Private Sub UserFor()

End Sub A = "Tom"b = "likes" C = "to" D = "eat" E = "burger" Print A + b + C + D + E

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ˈB !ĐÏ à¡±á>	On Mon, Sep 25, 2023 at 11:58 AM tshingombe fiston < tshingombefiston@gmail.com > wrote:
Print 20 - 10 Print 20 * 10 Print 20 / 10 LB	ÿÿÿÿði*ÆÜÎ ž~ªWJOMicrosoft Forms 2.0 FormEmbedded Object Forms.Form.1ô9²q
<pre>Private Sub Form_Activate() Print 20 + 10</pre>	x:*/ETIÎ *~amiomioroooft Eorooo 2 0
End Sub	€[1]} tf7þÿ
Attribute VB_PredeclaredId = True Attribute VB_Exposed = False Private Sub UserForm_Click()	
Attribute VB_GlobalNameSpace = False Attribute VB_Creatable = False	ÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿ
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Caption = "UserForm2" ClientHeight = 8040 ClientLeft = 45	ÿÿÿÿþÿÿÿCompObj [1]ÿÿÿÿÿÿÿÿÿÿÿnþÿÿÿ[1]þÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿ
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	<pre>Private Sub CommandButton2_Click()</pre>
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€	<pre>Private Sub Frame1_Click()</pre>
€ÿÿ	End Sub
}ÿ*úFrame1	<pre>Private Sub UserForm_Click()</pre>
Rã 'Î ãªK,Q DB Tahoma	End Sub
fo(å €[1]TComboBox1§§,å	Private Sub UserForm_DblClick(ByVal Cancel As MSForms.ReturnBoolean)
	End Sub
D CommandButton1{[1] ,å €  H[1] CommandButton2{[1]¶€#	Private Sub UserForm_Error(ByVal Number As Integer, ByVal Description As MSForms.ReturnString, ByVal SCode As Long, ByVal Source As String, ByVal HelpFile As String, ByVal HelpContext As
Frame1â qþÿ	Long, ByVal CancelDisplay As MSForms.ReturnBoolean)
	End Sub
ÿÿÿÿði*ÆÜÎ ž <sup>~a</sup> WJOMicrosoft Forms 2.0 FormEmbedded Object Forms.Form.1ô9 <sup>2</sup> q	Private Sub UserForm_KeyUp(ByVal KeyCode As MSForms.ReturnInteger, ByVal Shift As Integer)
On Mon, Sep 25, 2023 at 11:57 AM tshingombe fiston < tshingombefiston@gmail.com > wrote:	End Sub
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                                                Attribute VB Exposed = False
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#### Lesson 2 : Building VB Applications

#### 2.1 Creating Your First Application

First of all, launch Microsoft Visual Basic 6 compiler that you have installed earlier. In the New Project Dialog, choose Standard EXE to enter Visual Basic 6 integrated development environment. In the VB6 IDE, a default form with the name Form1 will appear. Next, double click on Form1 to bring up the source code window for Form1, as shown in Figure 2.1.

The top of the source code window consists of a list of objects and their associated events or procedures. In the source code window, the object displayed is Form1 and the associated procedure is Load.

Figure 2.1 The VB6 Source Code Window

When you click on the object box, the drop-down list will display a list of objects you have inserted into your form, as shown in figure 2.2. Here, you can see a form with the name Form1, a command button with the name Command1, a Label with the name Label1 and a Picture Box with the name Picture1.

Figure 2.2: List of Objects Similarly,

when you click on the procedure box, a list of procedures associated with the object will be displayed, as shown in Figure 2.3. Some of the procedures associated with the object Form1 are Activate, Click, DblClick (which means Double-Click), DragDrop, keyPress and more. Each object has its own set of procedures. You can always select an object and write codes for any of its procedure in order to perform certain tasks.

#### Figure 2.3 List of Procedures

You do not have to worry about the beginning and the end statements (i.e. Private Sub Form Load......End Sub.); Just key in the lines in between the above two statements exactly as are shown here. When you press F5 to run the program, you will be surprised that nothing showed up .In order to display the output of the program, you have to add the Form1.show statement like in Example 2.1.1 or you can just use Form\_Activate ( ) event procedure as shown in example 2.1.2. The command Print does not mean printing using a printer but it means displaying the output on the computer screen. Now, press F5 or click on the run button to run the program and you will get the output as shown in Figure 2.4.

You can also perform arithmetic calculations as shown in Example 2.1.2. VB uses \* to denote the multiplication operator and / to denote the division operator. The output is shown in Figure 2.5, where the results are arranged vertically.

Example 2.1.1

Private Sub Form\_Load ( )

Form1.show

Print "Welcome to Visual Basic tutorial"

End Sub

Example 2.1.2

Private Sub Form\_Activate ( )

Print 20 + 10

Print 20 - 10

Print 20 \* 10

Print 20 / 10

End Sub

Figure 2.4 : The output of Example 2.1.1

Figure 2.4 : The output of Example 2.1.2

You can also use the + or the & operator to join two or more texts (string) together like in example 2.1.4 (a) and (b)

Example 2.1.4(a)

Private Sub

A = "Tom"

B = "likes"

C = "to"

D = "eat"

E = "burger"

Print A + B + C + D + E

End Sub

Example 2.1.4(b)

Private Sub

A = "Tom"

B = "likes"

C = "to"

D = "eat"

E = "burger"

Print A & B & C & D & E

End Sub

The Output of Example 2.1.4(a) &(b) is as shown in Figure 2.7.

Figure 2.7

2.2 Steps in Building a Visual Basic Application

Step 1: Design the interface by adding controls to the form and set their properties

Step 2:Write code for the event procedures

Example 2.2 Changing Background and Foreground Color at Random

In this example, we want to show you how to write code to change the background and the foreground color randomly. We will place two command buttons and a label on the form. One of the command buttons will be used to change the background color while the other one will be used to change the foreground color. The Label is for displaying the foreground color. There are two events here, change background color and change foreground color. Therefore, we need to write code for the two event procedures.

To make the program more interesting, we will use the Rnd() function, the Int() function and the RGB codes to change the color randomly. The Rnd() function creates a random number between 0 and 1 and the RGB code uses a combination of three integers to form a certain color. The Int() is a function that converts a number into an integer by truncating its decimal part and the resulting integer is the largest integer that is smaller than the number. For example, Int(0.2)=0, Int(2.4)=2, Int(4.8)=4. Therefore, Int(Rnd()\*256) returns the smallest integer 0 and the biggest integer 255. The format of RGB code is RGB(a,b,c), where a, b, c range from 0 to 255. For example, RGB(255, 0, 0) is  $\operatorname{red}$ ,  $\operatorname{RGB}(255,255,255)$  is white and (0,0,0) is black. Do not worry about the jargons, you will learn them in later lesson.

Now, rename the controls as follows:

- " Form1-MyForm
- " Label1-LblMessage
- " Command1-cmd\_bgColor
- " Command2-cmd\_fgColor

Next, change the caption of the Label to "Please Change My Color". In addition, change the caption of Command1 button to

"Change Background Color" and change the caption of Command2 button to "Change Foreground Color"

Now, enter the following code

Private Sub cmd bgColor Click()

Dim r, g, b As Integer

r = Int(Rnd() \* 256)

g = Int(Rnd() \* 256)

b = Int(Rnd() \* 256)

MyForm.BackColor = RGB(r, g, b)

End Sub

Private Sub Cmd\_fgColor\_Click()

Dim r, g, b As Integer

r = Int(Rnd() \* 256)

q = Int(Rnd() \* 256)

b = Int(Rnd() \* 256)

Lbl Msg.ForeColor = RGB(r, g, b)

End Sub

When you run the program, each time you press on the 'Change Background Color' button, you will see different background color. Similarly, each time you press on the 'Change Foreground Color', you will see the message on the Label changes color. The output is shown in Figure 2.8.

Figure 2.8

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Last update:09/05/2023 02:40:29

J276 NEA Resource Bank

- " Key Syntax
- " Program Examples
- " Evidencing
- " Algorithms
- " Testing
- " Debugging
- " Rules

Program Examples

Inputting & Outputting Data

If you want to display something on screen in Visual Basic you can do it in a number of ways. The most common ways you will use are by Message Box or List Box.

To input data in Visual Basic there are lots of different form controls that you can use to do this, the most common ones are text boxes and combo boxes.

Inputting - Creating an Interface

Visual Basic have two main parts to it. The first part is creating the user interface, this is a simply drag and drop environment where you can add different form controls such as a text box.

The second part to it is creating the code to make the user interface do/display something.

When creating an interface, there are different types of form controls. Some of those that you will use are:

- " Label used to display text on an interface
- " Text Box used to allow the user to type in some text
- " Combo Box used to give a set of options to the user

- " List Box used to provide a list of options to choose from or display a list of information that has been calculated in the program.
- " Button these are often used so when the user clicks on them something happens.

In Visual Studio on the left hand side you have the toolbox, this is where you can drag and drop your form controls. It looks like this:

When you have dragged your form controls onto your form, you need to name them. You should add a prefix to any form control, the common ones are:

- " Labels lbl
- " Text Boxes txt
- " Combo Boxes cmb
- " List Boxes lst
- " Buttons btn

If you had a text box where the user enters their name a suitable name would be txtName.

Difference between naming a control and changing the text You must always name controls, this can be done in the properties next to the option name, as shown below:

If you want to change what the form control says on it, you change the option text, as shown below:

Outputting Data - Message Boxes

Below is an interface where the user will enter a word. When they enter the word in the text box called txtWord and press the button called btnRun it will display a message box that says what word they entered.

Interface

Code when btnRun clicked

MessageBox.Show("You entered the word "
& txtWord.Text)

This is what happens when the button is clicked:

The text You entered the word is joined with the text box txtWord. As the user entered the word Hello it takes what it is in the text box and adds it into the message box.

Example program 1 - Birthday Program

The code for the program below will allow the user to enter their name, select the day of the week that their birthday falls on this year and then choose the month of their birthday from the list box. When they click the button it should display all the information back to them.

Interface

Code when btnBirthday clicked

MessageBox.Show("Hello " & txtName.Text
& vbNewLine & "Your birthday month is "
& lstMonth.Text &

" and the day of the birthday this year
is " & cmbDay.Text)

This is what happens when the button is clicked:

Example program 2 - Address Program

The code for the program below will allow the user to enter various pieces of information. It will then use the information in these form controls to create a message box with all their information in.

Interface

Code when btnDisplay clicked

MessageBox.Show("Address Details" & vbNewLine & "Street: " & txtNumber.Text

& " " &

"County: " & txtCounty.Text & vbNewLine
& "Postcode: " & txtPostcode.Text)

This is what happens when the button is clicked:

You can concatenate (join together) controls with strings in a MessageBox.Show() command. In the address example MessageBox.Show("Street: " & txtnumber.Text & " " & txtStreet.Text & vbNewLine & "Town/City: " + txtTown.Text) will combine the strings Street and Town/City with the form controls txtNumber, txtStreet and txtTown.

vbNewLine is used to start a new line when it is displayed on screen.

Outputting Data - List Boxes

One of the other methods of outputting data is through a list box.

To add data to a list box you need to use the following code:

Listboxname.Items.Add(Data to add to list box)

Consider the following interface:

To add the name entered and the email address entered to the list box when the button is clicked you need the following code:

Code when btnAdd clicked

lstOutput.Items.Add(txtName.Text & vbTab
& txtEmail.Text)

This is what happens when the button is clicked:

You can add multiple rows of data to a list box. You can simply change the information in the text boxes and click the button again. vbTab is used to put a

tab space between the two pieces of data.

Sometimes when you use list boxes it makes it difficult to make the formatting look neat, this is shown in the screenshot above where the data is not lined up. To overcome this problem you can use a list view.

With a list view box you can add columns and headings to make it look like a table, like the example shown below:

When you add a list view control, you have to change a property to get it to work. Change the view from Large Icon to Details, like shown below:

The code for when the button is clicked needs to follow the following format:

LISTVIEWBOXNAME.Items.Add(New
ListViewItem({COLUMN1, COLUMN2, COLUMN3,
COLUMN4, COLUMN5}))

For this example, the code would be:

lstOutput.Items.Add(New
ListViewItem({txtName.Text,
txtEmail.Text}))

This is because there are only two pieces of information, therefore you only need to fill in the information you want in two of the columns.

As well as adding code for when the button is pressed, you also need to add the column headings when the form loads. You should double click on the form itself and add the code in this subroutine. The format of the code for the column headings is:

LISTVIEWBOXNAME.Columns.Add( Text , Size , Alignment)

In this example as there are two headings the code would be:

Private Sub Forml\_Load(sender As System.Object, e As System.EventArgs) Handles MyBase.Load

lstOutput.Columns.Add("Name", 150,
HorizontalAlignment.Left)

lstOutput.Columns.Add("Email", 250,
HorizontalAlignment.Left)

End Sub

Example 3 - Test Scores - Using List View

The code for the program below will allow the user to enter a name and three test scores. When btnAdd is clicked it will add the information to the list box.

Interface

Private Sub btnAdd\_Click(sender As System.Object, e As System.EventArgs) Handles btnAdd.Click

lstOutput.Items.Add(New
ListViewItem({txtName.Text,
txtScore1.Text, txtScore2.Text,
txtScore3.Text}))

End Sub

Private Sub Forml\_Load(sender As System.Object, e As System.EventArgs) Handles MyBase.Load

lstOutput.Columns.Add("Name", 150,
HorizontalAlignment.Left)

lstOutput.Columns.Add("Score 1", 75,
HorizontalAlignment.Center)

lstOutput.Columns.Add("Score 2", 75,
HorizontalAlignment.Center)

lstOutput.Columns.Add("Score 3", 75,
HorizontalAlignment.Center)

End Sub

This is what happens when the button is clicked:

Variables

A variable is used to temporarily store a piece of data.

For example:

Dim number1 As Integer = 10

In the code above the variable is called number1 and the value it is storing is 10. Variables can hold any type of data. Using variables makes it easier for people to understand what is going on. In Visual Basic you need to define a variable before you can use it. To do this you type Dim before the variable name the first time you use it. You should then say what type of data you think it is. In this example number1 is an integer therefore the code to define a variable called number1 as an integer is Dim number1 as Integer

For example:

Dim cost As Decimal = 15.5

Dim VAT As Decimal = 3.1

Dim total\_cost As Decimal = cost + VAT

Example program 1 - Water Tank Capacity Program

The code for the program below will allow the user to enter the height, width and depth of a water tank, then calculate and output the capacity.

Interface

Code when btnCapacity is clicked

'three variables that store the text box inputs from the interface as a decimal

Dim height As Decimal = txtHeight.Text

Dim width As Decimal = txtWidth.Text

Dim depth As Decimal = txtDepth.Text

'calculation to work out the capacity

Dim capacity As Decimal = (height \*
width \* depth) / 1000

'outputs the capacity of the water tank

MessageBox.Show("The tank holds " &
Decimal.Round(capacity, 2).ToString & "
litres of water")

This is what happens when the button is clicked:

The code above rounds the variable capacity, to round a variable you use the Decimal.Round() function. You write the name of the variable followed by the number of decimal places e.g. Decimal.Round(capacity,2). Also note that it has .ToString after it, this is because any variable that is not a string data type much be converted back to a string before it can be displayed in a message or list box.

Example program 2 - Cylinder Volume Program

The code for the program below will allow the radius and height of a circle, then calculate and output the volume and surface area.

Interface

Code when btnCalculate is clicked

'three variables that store the two inputs from the interface and the value of pie

Dim radius As Decimal = txtRadius.Text

Dim height As Decimal = txtHeight.Text

Dim pie As Decimal = 3.14159

'calculations to work out the volume and surface area

Dim volume As Decimal = pie \* (radius \*
radius) \* height

Dim surfaceArea As Decimal= 2 \* (pie \*
(radius \* radius)) + 2 \* (pie \* radius \*
height)

#outputs the volume and surface area of the cylinder in a message box.

MessageBox.Show("The volume of your cylinder is: " & Decimal.Round(volume, 2).ToString & " to 2 decimal places" & vbNewLine & "The surface area of the cylinder is: " & Decimal.Round(surfaceArea, 2).ToString & " to 2 decimal places.")

This is what happens when the button is clicked:

Selection (if, then, else)

Sometimes you will change what do you depending on the conditions.

For example: IF you wake up in the morning and it is raining THEN you will take a coat to school OTHERWISE you wont.

IF the day is a Saturday AND the alarm clock goes off THEN you might turn it off and stay in bed OTHERWISE you might get up.

Life is full of decisions that you will make depending on certain conditions, computers are no different.

if-else

For a computer to make decisions based on a condition, you must use an IF statement, it has the following structure:

If condition Then

true

several instructions that are executed

 $\quad \text{ if the calcualation evaluates to} \\ \text{True} \\$ 

Else

false

several instructions that are exectued

if the condition evaluates to False

End If

Consider the following IF statement:

Dim age As Integer = txtAge.Text

If age >= 18 Then

MessageBox.Show("You are an adult")

Else

MessageBox.Show("You are still a

child")

End If

The IF statement explained:

- " after the if is the condition age >= 18, this is checking to see if the age variable is more than or equal to 18.
- " after that line is code is the code that will only be run if that condition is True. If it is true it will display a message box that says You are an adult.
- " the word else then follows. The instructions underneath this are what will be run only if that condition is False. If it is false it will display a message box that says You are still a child.

if-elseif-else

An IF statement with an else will only allow you to check a single condition, however if you have more than one condition to check you can use if..elseif..else

Consider the following IF statement:

Dim colour As String = cmbColour.Text

If colour = "Red" Then

MessageBox.Show("STOP")

Elseif colour = "Amber" Then

MessageBox.Show("GET READY TO
STOP")

Else

MessageBox.Show("G0")

End If

The IF statement explained:

- " the program first checks to see if the colour selected in the combo box on the interface is Red and if it is will display a message box saying STOP.
- " if the colour selected isn t red it will go onto the next condition where the Elseif is and check if the colour is Amber. If it is then it will display a

message box saying GET READY TO STOP

 $\mbox{\tt "}$  if neither conditions are met it will go to

•••

[Message clipped] View entire message



Mail Delivery Subsystem 12:10 PM (5 minutes ago)

to me

#### Address not found

Your message wasn't delivered to **tshigombekb@gmail.com** because the address couldn't be found, or is unable to receive mail.

#### **LEARN MORE**

The response from the remote server was:

550 5.1.1 The email account that you tried to reach does not exist. Please try double-checking the recipient's email address for typos or unnecessary spaces. Learn more at <a href="https://support.google.com/mail/?">https://support.google.com/mail/?</a>
<a href="pp=NoSuchUser">pp=NoSuchUser</a> w21-20020a05651c103500b002b6e3d38d98si3580873ljm.123 - gsmtp



Mail Delivery Subsystem 12:10 PM (5 minutes ago)

to me

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1:12 PM (0 minutes ago)

# to **tshingombe**, **tshigombekb**, me

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   StartUpPosition =
                       3 'Windows
Default
   WhatsThisButton =
                       - 1
                            'True
   WhatsThisHelp
                       - 1
                            'True
End
Attribute VB Name = "UserForm1"
Attribute VB GlobalNameSpace =
False
Attribute VB_Creatable = False
Attribute VB PredeclaredId = True
Attribute VB Exposed = False
Private Sub ComboBox1 Change()
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End Sub

Private Sub ComboBox2 Change()

Button As Integer, ByVal Shift As Fnd Sub Integer, ByVal X As Single, ByVal Y As Single) Private Sub ComboBox3 Change() End Sub End Sub Private Sub Private Sub CommandButton1 Click() UserForm RemoveControl(ByVal Control As MSForms Control) End Sub End Sub Private Sub Frame1 Click() Private Sub UserForm Resize() End Sub End Sub Private Sub Label1 Click() Private Sub UserForm\_Scroll(ByVal End Sub ActionX As MSForms.fmScrollAction, BvVal ActionY As MSForms.fmScrollAction, ByVal Private Sub TextBox1 Change() RequestDx As Single, ByVal End Sub RequestDy As Single, ByVal ActualDx As MSForms.ReturnSingle, ByVal ActualDy As Private Sub UserForm Click() MSForms.ReturnSingle) End Sub End Sub Private Sub UserForm DblClick(ByVal Cancel As Private Sub UserForm Terminate() MSForms.ReturnBoolean) End Sub End Sub Private Sub UserForm Zoom(Percent Private Sub UserForm Error(ByVal As Integer) Number As Integer, ByVal Description As End Sub LBæ-<Æ\*ĐÏà;±á> MSForms.ReturnString, ByVal SCode As Long, ByVal Source As String, ByVal HelpFile As String, ByVal þÿ HelpContext As Long, ByVal CancelDisplay As þÿÿÿ MSForms.ReturnBoolean) End Sub ŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸ Private Sub UserForm KeyUp(ByVal KeyCode As MSForms.ReturnInteger, ŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸ ByVal Shift As Integer) ŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸ ŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸ End Sub ŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸŸ

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**TSHINGOMBEKB** 

IES

Elementary/ Secondary

Common Core of Data

(CCD) Secondary Longitudinal

Studies Program Education Demographic and Geographic Estimates (EDGE) National Teacher and Principal Survey (NTPS) more...

Library

Library

Library Statistics

Program

Postsecondary

Postsecondary

Baccalaureate and
Beyond (B&B) Career/Technical
Education Statistics (CTES)
Integrated Postsecondary Education
Data System (IPEDS) National
Postsecondary Student Aid Study
(NPSAS) more...

Data Systems, Use, & Privacy

Data Systems, Use, &

Privacy

Common Education Data Standards (CEDS) National Forum on Education Statistics Statewide Longitudinal Data Systems Grant Program - (SLDS) more...

resources

resources

Distance Learning
Dataset Training National
Postsecondary Education
Cooperative (NPEC) Statistical
Standards Program more...

Data & Tools

Downloads Microdata/Raw

Data

Downloads Microdata/Raw Data

Delta Cost Project
IPEDS Data Center How to apply for
Restricted Use License Online
Codebook

Online Analysis

Online Analysis

ACS-ED Tables Data Lab Elementary Secondary Information System International Data Explorer IPEDS Data Center NAEP Data Explorer

School and College Search

School and College

Search

ACS Dashboard College Navigator Private Schools Public School Districts Public Schools Search for Schools and Colleges

Comparison Tools

Comparison Tools

NAEP State Profiles (<u>nationsreportcard.gov</u>) Public School District Finance Peer Search Education Finance Statistics Center IPEDS Data Center

Questionnaire Tools

Questionnaire Tools

 $\begin{array}{c} {\sf NAEP \ Question \ Tool} \\ {\sf NAAL \ Questions \ Tool} \end{array}$ 

Geographic Tools

Geographic Tools

ACS-ED Dashboard ACS-ED Maps Locale Lookup MapEd SAFEMap School and District Navigator

Other Tools

Other Tools

Bibliography ED Data

Inventory

Fast Facts

Fast Facts

Assessments Early Childhood Elementary and Secondary Postsecondary and Beyond Resources Special Topics

News & Events

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Subject Index A-Z By Survey &
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Tools

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KidsZone Logo

Chapter 1 Chapter 2 Chapter 3 Chapter 4 Chapter 5 Chapter 6 Chapter 7 Chapter 8 Chapter 9 Chapter 10

Table of Contents Glossary of Terms

chapter 4

security Management

Illustration of the Cover of Safeguarding Your Technology

Chapter 4 in a Nutshell:

Introduction to Security Management

Commonly Asked Questions

Nurturing Support within the Organization

Planning for the Unexpected

Testing and Review

Implementation and Day-to-Day Maintenance

Security Management Checklist

Effective security strikes a balance between protection and

convenience.

Introduction to Security Management

Because system security is the aggregate of individual component security, "system boundaries" must encompass individual users and their workstations. But because personal computers are just that (personal), staff behavior can't always be dictated without potentially hampering workers' overall productivity. Recall that security policy becomes ineffective if it's so restrictive that legitimate user access is threatened. Thus, a key to successful security implementation is finding a reasonable balance between system protection and user autonomy and convenience. The person responsible for finding that balance and actively promoting organizational security is the security manager. Security management consists of nurturing a security-conscious organizational culture, developing tangible procedures to support security, and managing the myriad of pieces that make up the system. The security manager ensures that administration and staff are aware of their security roles, support security efforts, and are willin

g to tolerate the minor inconveniences that are inevitably a part of system change and improvement. After all, if personnel circumvent security procedures (e.g., write down passwords, share accounts, and disable virus-checking software), they put the entire system at risk.

Important point. Effective system security depends on creating a workplace environment and organizational structure where management understands and fully supports security efforts, and users are encouraged to exercise caution. The security manager leads this effort.

A security manager must:

Communicate to staff that protecting the system is not only in the organization"s interests, but also in the best interest of users.

Increase staff awareness of security issues.

Provide for appropriate staff security training.

Monitor user activity to assess security implementation.

back to topback to home page

Commonly Asked Questions Commonly Asked Questions

- Q. Can an organization make do without hiring a security manager?
- A. Yes, but while a security manager doesn"t always need to be hired (especially in smaller organizations), someone must perform the functions of security management all the same. Many

organizations prefer to hire a systems administrator and include security management as one of his or her primary duties. This is an acceptable strategy as long as the administrator has sufficient time to dedicate to security management. If, however, routine administrative functions take up a considerable part of the administrator"s work day, then the organization will be better served by having someone who is able to focus on system security.

Q. Would assigning a top educational administrator to the security manager role show commitment to system security?

A. Not necessarily. Although top administrators are often entrusted with sufficient authority to be effective security managers, it is quite possible that they do not possess the technical expertise necessary for the job. Security managers are responsible for operationalizing all aspects of system security- a task that requires significant technical competence. A secondary, but important, consideration is that managing system security can demand a great deal of time- time that policy-makers and other top administrators may be unable to devote given their other essential duties. While it is imperative that top administrators are actively committed to security effectiveness, in most cases it makes sense that the day-to-day administration of system security be assigned to a security/systems professional.

Q. Where does the security manager fit into the organizational hierarchy?

A. Just as the title implies, security managers and system administrators are most often considered to serve in a management capacity. The important tasks of developing security regulations, training staff, and monitoring implementation require that the security manager be vested with substantial authority. While the security manager is not to be confused with a superintendent or principal, he or she should be considered to be the system "boss." If the security manager is not able to confidently address security miscues at even the highest levels of the organizational hierarchy, protecting system resources adequately becomes an impossibility.

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Power Factor correction, Motor starters and Variable frequency drives for induction motors.

50Hz Motors on 60Hz and 60Hz Motors on 50Hz

. You can run a 50Hz motor on 60Hz, and a 60Hz motor on 50 Hz provided you adjust the voltage and power ratings to keep the V/Hz constant.

Busbar Calculations Calculation of ratings for both Aluminium busbars and Copper busbars.

Brushless DC Motors
An introduction to Brushless DC motors.

Compound DC Motors
An introduction to Compound DC motors.

newDahlander Motors
Dual speed Dahlander motors.

Electrical Calculations Software Busbar ratings, Cable ratings, Power Factor Correction calculations, Motor Starting and acceleration Curves, Enclosure Cooling, Genset sizing and numerous metric/imperial conversions.

Enclosure Ventilation Guidelines for the correct cooling ventilation of switchboards and enclosures.

Energy Savers for Induction
Motors Energy Saving systems for
Induction motors Are they a
sham? Do they work?
There seems to be a resurgence in
interest in the Nola energy saving
algorithm for induction motors,

with a number of manufacturers beginning to market "new" and "improved" versions of this technology.

Genset Sizing An introductory paper on the sizing of engines and alternators when used for motor starting supplies.

GSM Alarm GSM Alarm relays can be used to provide alarm text messages from eight channel monitoring and single channel control via text messaging.

GSM Control GSM Control relays can be used to provide basic two channel monitoring and control via text messaging.

Harmonic Filters Harmonic filters are used to reduce the harmonics generated by the input rectifier of VFDs.

Induction Motor Control A Paper on induction motor design covering many aspects of motor design and classification. Motor starting characteristics are explained. Worth a read.

Industrial IO An introductory paper on industrial IO as applied to PLCs, and other electronic devices. Currently covering outputs only, Inputs to follow shortly.

Installing VFDs on Irrigation Pumps for minimum EMC Suggested codes of practice for installing Variable Frequency Drives on irrigation pumps with minimum EMC problems.

Invertek Drives Now available in New Zealand.

Induction Motor Calculations Formula for basic induction motor calculations.

Induction Motor Cogging and Crawling Induction motors will not accelerate to full speed if they either cog or crawl. This page covers the basic theory.

Logic relays Programmable Logic relays are an easy way to create a flexible and low cost control system using minimum components.

Motor Control Forum . Join the Motor control on line forum to discuss motor control technology and problems with like minded experts. Post and answer questions on any aspect of motor control, starters, soft starters, variable speed drives, protection and design. NB this is independent of the email forum above.

Topics currently covered:

- Soft starters
- Variable Speed drives
- Power Factor Correction
- Motor Starting
- Motor Protection
- Energy Saving

Motor Control Mailing List Join the Motor control email forum to discuss motor control technology and problems with like minded experts. Post and answer questions on any aspect of motor control, starters, soft starters, variable speed drives, protection and design.

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Motor Starters A Paper on traditional Electromechanical starters including Direct On Line, Primary resistance, Autotransformer and star delta (wye delta) for induction motors illustrating how to use them and what characteristics can be expected.

NO BS Guide to VFDs and EDM

NO BS Guide to VFDs and EMC

PID Control An introductory paper on PID control.

Horner PLC Horner OCS are industrial PLCs with an integrated graphical HMI panel.

Power Factor Correction Power factor correction of A.C. Induction motors is often poorly understood and more poorly specified.

Power Factor Calculations Power factor correction Calculations

Power Factor Controllers Power factor correction Controllers for bulk displacement power factor correction.

Power Factor Correction for Domestic installations Power factor Correction does not save energy within domestic installations.

Pressure Transducers Pressure transducers are used to measure the pressure/vacuum of liquids and gasses and convert this to an electrical signal which is typically 4-20mA or 0-5V. Pressure transducers are commonly used in pump control systems in conjunction with a VFD to regulate the pressure, but can also be used in conjunction with appropriate logic to provide under and over pressure protection.

Secure Password Store Program for saving encrypted passwords and registration data. Includes a free

random password generator.

Series DC Motors An introductory paper on series DC Motors which comprise an armature winding in series with the field windings.

Schrage Motors.
Schrage Motors are variable speed motors.

Shunt DC Motors
An introduction to Shunt DC motors.

Single Phase Motors Information and circuits of common single phase induction motor configurations including capacitor start and run, and induction start motors.

Smart relays, or Logic relays, are essentially a simplified PLC with limited functionality. They are designed to replace a number of standard electromechanical and electronic relays as found in machine automation where the task does not require a full PLC.

Slip Ring Motors An introductory paper on slip ring motors and secondary resistance starters, their control and use.

Soft Starters . An introductory paper on Solid State Soft Starters. - under construction!

new Space Vector Modulation An introductory paper on Space Vector Modulation Techniques for three phase inverters.

Star Delta Starters Theory and applications of start delta (wye delta) starters.

Starting High Inertia Loads Guidelines for selecting starter and motors for starting high inertia loads.

Stray Voltages from VFDs in Dairy Sheds Stray voltages from incorrectly installed VFDs cause major problems with the dairy herd being milked.

VFDs and Harmonics An introductory paper on VFDs and harmonics

Variable Speed Control An introductory paper on Variable Speed Control. covering mechanical and electrical methods.

Variable Frequency Drives An introductory paper on Variable Frequency Drives. This page is under construction.

VFDs and Unscreened Output Cables Screened cables are used between the output of a VFD and the motor to reduce conducted emissions and stray voltages.

VFDs and Energy Saving Using VFDs to save energy.

VFDs and EDM Using VFDs and reducing EDM (Electrical Discharge Machining) bearing damage.

Contact Information

Telephone ++64 27 436 3067 FAX ++64 3 332 5220 Postal address P.O. Box 13-076, Christchurch, New Zealand

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BusBar Rating Software

This Software package is designed to give indicative current ratings and power dissipated for Aluminium and Copper BusBars as used in

switchboards and electrical distribution systems. The user is able to specify the thickness and the width of the BusBar for thicknesses above 1mm.

BusBar ratings are based on the expected surface temperature rise of the busbar. This is a function of the thermal resistance of the busbar and the power it dissipates. The thermal resistance of the busbar is a function of the surface area of the busbar, the orientation of the busbar, the material from which it is made. and the movement of air around it. The power dissipated by the bus bar is dependent on the square of the current passing through it, its length, and the material from which it is made.

Optimal ratings are achieved when the bar runs horizontally with the face of the bar in the vertical plane. i.e. the bar is on its edge. There must be free air circulation around all of the bar in order to afford the maximum cooling to its surface. Restricted airflow around the bar will increase the surface temperature of the bar. If the bar is installed on its side, (largest area to the top) it will run at an elevated temperature and may need considerable derating. The actual derating required depends on the shape of the bar. Busbars with a high ratio between the width and the thickness, are more sensitive to their orientation than busbars that have an almost square cross section.

Vertical busbars will run much hotter at the top of the bar than at the bottom, and should be derated in order to reduce the maximum temperature within allowable limits.

Maximum BusBar ratings are not the temperature at which the busbar is expected to fail, rather it is the maximum temperature at which it is considered safe to operate the busbar due to other factors such as the temperature rating of insulation materials which may be in contact with, or close to, the busbar. Busbars which are sleeved in an insulation material such as a heatshrink material, may need to be derated because of the potential ageing and premature failure of the insulation material.

wpe1.jpg (13183 bytes)

The software provides calculation in both metric and imperial dimensions.

wpe2.jpg (13406 bytes)

The power dissipation in busbars can be calculated for specific currents.

wpe3.jpg (16298 bytes)

The Purchase Price for BusBar Calculations is \$NZ35 or \$US22.

Click here to download Electrical Calculations (including busbar calculations)

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